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Some Considerations on the Government Life Annuities and Life Assurances Bill. By MARCUS N. ADLER, M.A., Fellow of the Institute of Actuaries and of the Statistical Society.

[Read before the Institute of Actuaries, 25th April, 1864, and ordered by the Council to be printed.]

THE measure by which the Chancellor of the Exchequer proposes to extend the benefits of life assurance and annuities to the nation at large has now been before the public some time. Few Bills have of late attracted so much attention, and have been so earnestly discussed by all classes, as this. But beyond what was elicited at an interview that took place between the Chancellor of the Exchequer and the Actuaries of several Offices, and some passing remarks on the subject made at the last meeting of the Institute of Actuaries, when we had the advantage of hearing Mr. Samuel Brown's excellent paper on Friendly Societies, the public have as yet had no opportunity of hearing the opinions of those, who after all are best able to judge. It now appears, that the Chancellor of the Exchequer is opposed to a general inquiry and the calling for "persons, papers and records" by the Select Committee, to whom the Bill has been referred, and it therefore becomes all the more desirable that the merits of the proposition of the Chancellor should be calmly and impartially discussed by the members of this Institute.

Perhaps it may be considered boldness, that one so young as myself should venture to offer remarks on a measure so important as the one under consideration; but I am filled with the sincere desire of contributing, however slightly, to the passing into law of a Bill, that may be productive of incalculable benefits to the poorer and working classes, and I shall be satisfied if the comments which my paper may call forth from the members throw some new light on this subject.

The idea of providing for a sum payable at death is much older than is generally imagined. A recent discovery places us in a position to date it as far back as the time of the Emperor Hadrian. Mr. Kenrick, in his work on Roman Sepulchres, gives us a translation of an inscription on a marble slab found at Lanuvium, an ancient town in Latium, distant about 19 miles from Rome. It contains the regulations of a Club, which had for its ostensible object the worship of Diana and Antinous; but in reality it was instituted in order to provide, by monthly payments of 3 asses (about 2*d.*), a sum of 300 sesterces (about £2. 5*s.*) at death, to cover the expenses of burial. It may interest the advocates of

convivial gatherings among Friendly Societies to know, that the entrance fee of the new members consisted, besides a payment of 100 sesterces (about 15s.), in presenting the Society with an amphora of wine, about 6 gallons of our own measure. Here we have the features of a regular Friendly Society placed before us in a very marked manner.

Again, the idea of a Government taking in hand the granting of annuities and assurances is not of a character so novel or unheard-of as some are disposed to think. Two hundred years ago the enlightened and renowned Grand Pensionary of Holland, De Wit, counselled and prevailed upon the States of Holland to negotiate funds by life annuities, considering that to be the best mode of investment for private families.

In this country, as far back as 1773, a Bill passed the House of Commons, on the motion of Mr. Dowdeswell, to enable the purchase of deferred annuities, or provisions for old age, to be secured out of the poor rates of the parish to which the purchasers belonged, in case the funds subscribed should prove insufficient to pay the annuities. This Bill, notwithstanding that it had the support of such men as Baron Maseres, Edmund Burke, Benjamin Franklin, &c., was thrown out by the Lords. In 1807, Mr. Whitbread introduced a Bill for the establishment of Post Office Savings Banks, and of a Poors Insurance Fund in connection with the Post Office. It may be interesting to know some of the remarks made by Mr. Whitbread when introducing the Poor-Laws Bill:—

“I would propose the establishment of one great national institution, of the nature of a Bank, for the use and advantage of the labouring classes alone; that it should be placed in the metropolis, and be under the control and management of proper persons, to be appointed; that every man who shall be certified by one justice, to his own knowledge or on proof, to subsist principally or alone by the wages of their labour, shall be at liberty to remit to the accountant of the Poors Fund (as I designate it), in notes of cash, any sum from 20s. upwards, but not exceeding £20 in any one year, nor more in the whole than £200; that once in every week the remittances of the preceding week be laid out in the 3 per Cent. Consolidated Bank Annuities, or in some other of the Government Stocks, in the name of Commissioners to be appointed; to avoid all minute payments, no dividend to be remitted till it shall amount to 10s.; and that all fractional sums under 10s. be from time to time reinvested, in order to be rendered productive towards the expenses of the Office.

“The plan will be more amply detailed in the Bill itself, and such regulations are provided as will, with the intervention of the Post Office, give ample facilities to its execution. Gentlemen need not be told that the perfection attained in the management of that great machine is such, as to give the most easy and rapid means of communication with the metropolis,

much greater indeed than usually subsists between the remote parts of any country and its capital town.

"Sir, the advantage of such a plan as that which I have just sketched out, would be very much increased if, in addition, an opportunity were given to those who might wish, by an annual payment up to a given age, to purchase an annuity for the remainder of their lives, or to insure the payment of a gross sum to their families upon their death, or upon any of those calculable events, which are the usual objects of insurance.

"There are Offices in which the higher and middle classes may, by proportional annual payments, make a provision for themselves or families; but the lowest of the requisite payments are above the scale of the labourer, to whom such a provision is still more necessary.

"I would therefore propose, that at the same place there should be established, under the same direction, an Insurance Office for the poor. That tables should be calculated for the assurance, in consideration of annual payments, of gross sums upon the death of the assured, of an annuity for the remainder of a life after a given age, or of an annuity to a wife surviving a husband, or of payments upon a child's attaining a certain age. No annual payment to be less than 10s., or more than £5. That the calculations be at such rates of interest and probabilities of the duration of life, as to be likely to give such an advantage only to the insurers as would cover the expense of the establishment. That the receipts be invested in Stock. That no insurance be made upon any life without the testimony upon oath of a medical man, that such person is in good health, nor without proof on oath of the age, and the certificate of a justice that he is satisfied of the facts. On proof of fraud or misrepresentation the insurance to be forfeited. All dividends and annual payments should be wholly exempt from the property tax."*

Mr. Whitbread, in continuation, made sundry excellent suggestions with regard to the proposed Government Assurance Office, to which it would be well if the Chancellor of the Exchequer, in the measure now under consideration, were to pay regard.

The Bill was, however, rejected by Parliament. Let us hope that, after an experience of above fifty years, the present measure will meet with a better fate, and that as one part of Mr. Whitbread's plan has been realised in the establishment of Post Office Savings Banks, a Poors Insurance Fund will meet with like success.

Dr. Farr, to whom we are indebted for so many valuable contributions to the theory and practice of life assurance, has strongly advocated a plan similar to the one under consideration.

In his letter to the Registrar-General, appended to the 12th Registrar-General's Report, he says, "It is a signal defect in the existing system of insurance that in it, as in the old system of banking, the most numerous and not the least valuable, or collectively the least productive, class of the community, enjoys few

* *Hansard's Debates*, 19th February, 1807.

of its advantages ; nor do I see how the defect can be adequately supplied, unless the Legislature authorise the Government to insure the lives of the people up to a certain amount, as well as to sell them deferred annuities."

Dr. Farr at the same time very happily comments upon our Poor Law, which, though not perfect, does honour to the sagacity and kindness of our Legislature. He considers the English Poor Law nothing less than an insurance of the life of every man, woman, and child in England against the danger of death by starvation. The Poor Law might be extended so as to make the relief in destitution and distress bear some proportion to the ratepayer's previous contributions, and thus put the whole population of this country on the footing of a great Friendly Society, in which the higher classes are honorary members, who, in the event of their being reduced to poverty, might be relieved on a scale commensurate with their previous contributions. At all events any plan which is calculated to aid the workman in old age, or his family after his death, may be looked upon as an improvement of the Poor Law, and may therefore well be taken up by Government.

Mr. Tidd Pratt has advocated the establishment of parochial Friendly Societies, and the authorisation of the Trustees of the poor, in the various parishes of the United Kingdom, to defray the expenses of the formation and management of one soundly-constituted Friendly Society in their districts, provided they have a right of supervision or participation in the management.

The Marquis of Lansdowne would have ventured even further. In 1861 he introduced a Bill—a permissive one—empowering a parish, or union of parishes, to vote from the poor rates one-fourth part of the yearly contributions of the members. This Bill is founded upon one amended in Committee in the year 1818, the preamble of which propounded, that with a view to the reduction of the poor rate, and to the gradual introduction of a better feeling among the people, it was desirable, that special encouragement and facility should be afforded to meritorious and industrious persons for rescuing themselves from the necessity of an appeal to parochial relief.

Thus repeatedly and emphatically has the interference of Government, or of the local authorities, been advocated.

The present measure, which was so ably introduced by the Chancellor of the Exchequer, has two objects in view :—

First, that annuities authorised to be granted under 16 & 17 Vict., chap. 45, may be purchased on payment of smaller instalments and at shorter periods than were fixed under the said Act.

Few, I think, will be disposed to dispute the propriety and fairness of this proposition. It is only necessary to mention, that, at the present time, only 6,500 such annuities are in force under the Savings Bank Act, securing in the aggregate, annuities for less than £140,000 a year, to show that these annuities have hitherto been neither popular nor have been extensively adopted.

I question, whether, even with the facilities which the Chancellor of the Exchequer now offers, life annuities, in their present form, will become more favourite investments for working men; and yet what could be more desirable, than that the industrial classes should make provision for their old age from their savings during the years they enjoy health and vigour? According to the rates now charged at the National Debt Office, a man aged 20, to secure for himself a deferred annuity of £13 a year, or 5s. a week, to commence on his attaining the age of 65, would have to pay 13s. a year on the non-returnable, and £1. 2s. 9d. on the returnable scale. According to the former, if illness or any other cause should prevent him from making one of the payments at the proper time, he forfeits both the annuity and the premiums paid. According to the latter scale, it is true he may have the premiums paid, returned at any time, but if he should once omit paying the premium at the proper time, he is deprived of the annuity that is to support him in old age.

Dr. Farr proposes, in the 12th Registrar-General's Report, a plan according to which a separate annuity can be purchased for every premium, which may be discontinued at any time. Thus a man aged 20, can, for £1, secure a deferred annuity of 17s. 5d. on his attaining the age 65; if he repeat this payment the following year, he secures altogether an annuity of £1. 14s. 2d.; for 10 years premiums of £1 a year he can secure an annuity of £7. 9s. 8d.; for 21 years premiums he can secure an allowance of 5s. a week; and if he continues to pay till the year 65, he can provide himself with an allowance of above 7s. a week, the premiums paid being returnable at any time he pleases, provided he be in good health; whereas, according to the existing rates, an allowance of but 5s. a week can be secured, as will be seen from the Government tables, on an annual payment of £1. 2s. 9d. This is a startling difference; and, although in the latter case the premiums are returnable, even if the state of health of the life is impaired, yet, if we remember that, according to Dr. Farr's plan, the purchaser is not bound to pay the same amount each time, but may deposit whatever sum he can spare, monthly or even more frequently, without giving

more trouble than he would cause on paying a deposit to a Savings Bank, except the necessity of referring to a table to ascertain what amount of annuity shall be placed to his credit in respect of the payment made, this method will be found very advantageous.

True no charge on the premiums for expenses of management has been made, but that would little interfere with the working of the measure; and it might well be argued, that as the present Government annuity rates do not appear to be loaded, though calculated at $3\frac{1}{4}$ per cent., annuities on the method pointed out could be granted if computed at 3 per cent., without subjecting the rates to any addition. Besides, as the grant of life annuities tends to the reduction of the National Debt, the State may well bear the expense of the management of the business. I may add, that there is nothing in the wording of the proposed Bill, which could prevent the scheme I have just pointed out from being adopted.

The other object the Chancellor of the Exchequer wishes to attain is, to make life assurance more accessible to the working classes, by removing the restriction under which persons buying a life assurance were obliged at the same time to purchase a deferred annuity. The existing law is evidently unreasonable, because the man, who wishes to provide for his family after his death, need not at the same time be anxious to provide for his old age.

Yet the Chancellor's proposal has met with great opposition. Loud was the clamour raised against it, in the first instance, from many different quarters. The agitation seems now to be gradually subsiding; and there cannot be a more conclusive proof of the increasing popularity of the measure than the fact, that the whole body of Life Assurance Companies in Scotland has lately sent a statement to the Chancellor of the Exchequer expressing its general approval of the Bill.

Let us examine the objections that have been raised against the Chancellor of the Exchequer's proposition.

One chief argument advanced against Government granting assurances, is, that the State has no right to interfere in such matters, life assurance being a regular business, like banking, trading, baking and brewing, or any industrial occupation.

In reply to which we need only call to mind the remarks previously cited, made by Dr. Farr and other eminent philanthropists, showing how the State is directly benefited by the poor man's provision for his wife and children; to what extent the entire nation reaps the advantage, if inducements are held out to the poor to become

thrifty and industrious. By granting assurances the State does hold out these inducements. In the words of Professor De Morgan, who 30 years ago advocated the establishment of one large central Assurance Office, the expense of which he even suggested should be borne for a few years by the public purse, "The Act which should establish this universal Friendly Society would, in two generations, become the real Poor Law."*

But it is alleged, that, by founding a Government Insurance Society, the rights of the people are attacked, and their freedom infringed upon. We answer, their freedom would in a similar manner have been interfered with by the establishment of the Government Annuity Office, or of the Post-Office Savings Banks. There is no compulsion in the matter; people may choose for themselves whether they will invest therein or not. Even John Stuart Mill,† whilst strongly advocating the "laissez faire" system, admits that, when a Government provides means for attaining a certain end, leaving individuals free to avail themselves of different means, if these be in their opinion preferable, there is no infringement of liberty, no irksome or degrading restraint.

It is asserted that the people will be taught thereby to rely more upon Government than upon themselves. It is quite true that Government will, by means of this measure, do away to some degree with the necessity of operatives, who hardly know their alphabet, framing tables of rates of mortality; or, in the words of Dr. Farr, "playing with the artifice tools of actuaries." In that respect it will be better if they trust to others rather than to themselves. But does the Government subsidize them, pay their premiums for them, or allow the people to relax in their exertions to gain a respectable living and to lay by what they can? On the contrary, by showing the operatives where they can invest their premiums, even in very small amounts, with absolute safety, habits of thrift and feelings of independence are fostered; they will be made to rely more upon themselves and less upon Government by securing themselves in their old age, and their families after their death, against the necessity of having to resort to the parish for relief. It would also be an advantage to the State to put the working man in possession of a security not altogether tangible, but which, by means of the law, becomes possessed of value. If, also, the support of his old age, and that of his family after his death, becomes connected with his past savings, the labouring man

* *Essay on Probabilities*, p. 298.

† *Principles of Political Economy*, book v., chap. ix.

becomes clearly interested in the upholding of the existing state of things.

Another argument against the Bill was, that by placing insurance in the hands of Government, there would be a great increase in the number of Government officials ; by the creation of which, according to J. S. Mill, notwithstanding all the liberty of the press, or the popular constitution of the Legislature, our country would become free only in name. Let us look at the state of the case. The Government proposes to avail itself of a machinery already in existence. The Post-Office officials are to act the part of agents, and the Poor-Law medical officers the part of medical examiners. There will, at most, be a necessity for appointing some commissioners for the control of the establishment; an actuary, an accountant, and a staff of clerks to conduct the business at the head office ; perhaps also some travelling inspectors to supervise the different agencies.

Again, it is asserted that the cost of such an establishment, if carried on by Government, will be large ; and it is unjust that the public should bear this expense for the benefit of the few, that will avail themselves thereof. It has been seen that such an Office will, though it may work upon a large area, yet not involve heavy expense ; a small increase of salary might be sufficient for the remuneration of the Post-Office employées. It has also been seen that the State, or its representatives, the Poor-Law Commissioners, are directly interested in the extension of life assurance among the working classes, so that the aid of those in their employ, the Poor-Law medical officers, may well be claimed, nor need the pay for their services be large. But whatever the expenses may be, they will not fall upon the public purse ; the mode proposed to be adopted will be to put an adequate *loading* upon the premiums, which will meet all the expenses.

But, it is argued, it is not fair for Government to enter into competition with Insurance and other Societies, and make use of the resources of the nation to enable it to undersell public Companies. If Government does enter into such a course, it will, it is contended, establish for itself a monopoly. The like outcries have been raised on previous similar occasions. With what reason let us see.

When Post-Office Orders were about to be introduced, those interested in Banks complained and expressed their conviction that Government would not be satisfied with issuing money orders for small amounts, but would gradually take the banking business in their own hands, an attempt which would injure all private

concerns. But what is the real state of the case? Government has not exceeded the maximum of £10 for each money order, and banking business has become developed to the remarkable extent we witness at the present day.

Again, when but lately the Post-Office Savings Banks were opened, many foretold the ruin of the old Savings Banks. But what is the result? At the end of 1863 the capital of the Savings Banks was £41,258,000, being only £20,000 less than the capital at the end of 1860, before the Post-Office Savings Banks had been established. Now, if we remember that in consequence of the cotton famine the amount withdrawn in the year 1861-2 exceeded the average by above half a million pounds, we shall find that, allowing for this extraordinary efflux, the deposits with the old Savings Banks have actually increased—increased even by a considerable amount. The Post-Office Savings Banks themselves cannot but be considered an eminent success. After having been but two years in existence, nearly three million and a half pounds stood invested therein last year.

A similar result, I believe, will happen with Assurance Offices. The Government will, no doubt, obtain a considerable amount of business; but the field of operations is so large, that neither the deserving Friendly and Industrial Societies, much less the class Insurance Companies, will suffer thereby. Let us look at the advantages the latter possess over a Government establishment. In the first place, as the funds of the Government Assurance Office are only to be invested in Government securities, they cannot be considered as realising much more than 3, at the utmost $3\frac{1}{2}$, per cent., whereas the old established Insurance Companies make between 4 and 5 per cent. An addition sufficient to cover all the expenses of management will also have to be made to the net premiums. Hence the rates the Government will have to adopt will be higher than the non-participating rates of most of the other Offices. We cannot expect them to be higher than the participating rates of those Offices, because these make a periodical return to the assured in the shape of reduction of the premiums, or bonuses, which the Government does not propose to do. Government will not, then, undersell the public Companies.

Much less will it establish a monopoly for itself. It does not propose to take assurances for amounts larger than £100; possibly, if Mr. Sheridan's motion passes, the limit will be £50. Now, this is dealing with the worst class of business; that branch, in fact, which, it is justly said, is least remunerative.

The remarks made by the chairman of the Economic Life Assurance Society, at their last general meeting, are so appropriate, that I cannot refrain from quoting them. He says:—

“The Chancellor of the Exchequer is going into a business we do not at all covet. We are quite willing to leave him to carry on his own business; for no doubt it is the duty of a paternal Government to look after the industrial classes, and we propose to let him do so without cavilling at such a benevolent intention. I can point out, without much difficulty, the way in which we looked at it. We assure as low as £100, but we do not like such small policies. The larger the policy, the better it is for the Society generally; and for this reason, that our premiums are calculated with a certain margin for various little chance deviations in the calculations as to the exact risk of life, and also to pay the expenses of the Office, and to put by such profit as we can. Supposing this margin was 25 per cent.; if you assure a life at an age at which the premium would be £4 for £100, 25 per cent., or £1 of that would go to the Office expenses and to accumulations of profit;* but if you assure a person for £1,000 at the same age, you get £10 for the same purpose, and the expense to the Office is not 6*d.* more. So that the smaller the amount of the policies, the greater is the proportional expense. We find, from experience, that each policy costs us nearly £1 per annum. No doubt the Chancellor of the Exchequer is up to all this; and, therefore, he is obliged to state candidly, that in order to pay his way he must charge higher rates of premium than an ordinary Assurance Office would do.”

Government also proposes not to take any assurances on lives under 16 years.

It is clear, then, that under the present conditions there is no cause for fear of the Government creating a monopoly. But what guarantee, it is asked, have we, that Government will stop at this maximum of £100? “It is now getting the thin edge of the wedge in, and will usurp, at some future time, the whole of the insurance business.” We say, in reply, that such a course would completely set at naught the very object for which the present Bill has been proposed. It has not in view the reduction of the National Debt by the conversion of a permanent into a temporary charge, or any similar aim. Its only avowed and implied object is to offer facilities for the increase and extension of frugal habits among the working classes, and those only. It is based upon the same principle as that of Post Office Savings Banks, and we have not yet heard of any attempt to increase the maximum of deposit for those establishments. Besides, it is unlikely, even if Government were empowered to grant assurances above £100,

* Properly speaking, only 16*s.* in the case where the pure premiums are loaded 25 per cent.

that it would find customers. Those who insure for larger amounts can form some opinion as to the status of different Offices, and would certainly prefer those which give large bonuses to the assured, to a Government Insurance Office which asks high rates and makes no returns.

I have heard others shift the argument, and assert that the State should shrink from taking in hand that branch of life assurance business, which is least remunerative—a business which the larger Companies hesitate to transact. The system, they say, must prove a failure, and ultimately cause great loss to the country. But the Chancellor of the Exchequer has pointed out to us a mode by which these small assurances can be taken, which, with so well disciplined a staff of officers as that of the Post-Office, cannot fail to work well, and largeness of number will effect what in the present Assurance Companies is attained by the greatness of the amount. Assurances granted by Government in large numbers for small amounts would also possess that advantage, that there is much less likelihood of departures from the mean average. The risk of a high average amount assured becoming claimable in certain years is thereby materially lessened. This fact will render it almost unnecessary for the Government to set apart any guarantee fund to meet excessive claims at any time. If every facility be given to the working classes—possibly even by allowing Friendly Societies and Savings Banks to act the part of intermediate agents between the working classes and the Government—there is no reason why the plan should prove a failure. Instead of its proving a loss to the country, as its opponents prophesy, it may even prove a source of profit; for no doubt, if sufficiently high premiums are charged, a profit must be realised, to part of which the State has a right, guaranteeing as it does the obligations of the Assurance Office.

But, it is argued again, why take from Friendly Societies the most profitable part of their business, and leave them the least profitable portion? Why deal a blow at institutions which evidently suit the views and the taste of the working man, and which are calculated to uphold that eminently English feeling for local self-government by which the nation becomes best fitted for the enjoyment of political rights?

To the first portion of this argument we reply, in the words of an able writer in *All the Year Round*, “The Government will take away from Friendly Societies not that part of their business which is necessarily the most profitable, but that part of their business which enables them to conceal their insolvency for the longest

period, and which for the longest time facilitates a lavish and wasteful expenditure."

I would not wish you to understand that I am at all opposed to, or would animadvert upon, the Friendly Societies; but I cannot help thinking that something should be done for their maintenance. The plan at present proposed, viz., to establish a Central Committee, independent of Government—similar to the Friendly Societies Institute, which has lately been dissolved—and which committee would discharge the functions of a consulting actuary and otherwise advise the Friendly Societies, will not, I think, answer the object in view. Take the case of the Royal Liver Friendly Society, which is so indefatigable in its opposition to this Bill, and whose different branches are every day petitioning Parliament against the measure. An eminent actuary certifies that the rates are adequate for providing the benefits—which no doubt they are; but he takes care to add, "the transactions connected with such a branch of provision being presumed to involve very trifling expense." Now what is the real nature of the case? Mr. Tidd Pratt, in his Report of 1863, on Friendly Societies, states that the total expenditure of the Society amounted to 40 per cent. of its income; and in previous years it was even higher. That was certainly not a trifling expense. Yet I am far from saying that this and similar Institutions are in an insolvent condition. I think there is a good deal of truth in what Mr. Sprague advanced at the last meeting, that in consequence of the premiums charged by Industrial and Friendly Societies being very heavily loaded, often as much as 60 or 70 per cent., several years may elapse before the net premium that would then be charged amounts to the premium levied originally. Accordingly there may be Societies of 5 or 6 years' standing, having but a trifling reserve, that may yet be in a solvent condition. But what I urge is, that it is of no use for actuaries, or any counselling body which cannot enforce its authority, to calculate tables of rates, to make certain suggestions, and lay down principles for the guidance of Friendly Societies, if these Societies depart therefrom and follow their own opinions.

I conceive, however, that it would be less objectionable for Friendly Societies to continue to grant sick allowances, especially if these sickness payments are only allowed to be made up to age 60 or 65. In the words of our excellent President, Mr. Jellicoe, "Sickness Clubs do not necessarily involve any lengthened series of

accounts, or any prolonged maintenance of funds. There is not in them that lamentable and most painful character which pertains to Assurance Clubs, or the Deferred Annuity Clubs, to which men may subscribe for years and years, and when the time for the expected benefit comes a total failure ensues. In Sickness Clubs there need be nothing of the sort. It is quite competent for a number of persons to subscribe together for the sickness of this year, next year, or the third year, and having paid all demands upon the Club, to settle its affairs and begin *de novo*."

If, at the same time, these Friendly Societies acted the part of intermediate agent between the working man and the Government Office for the effecting of assurances and deferred annuities, the Societies would still continue to exercise a beneficial influence. The members could continue to enjoy their meetings, and discuss amongst each other the common objects of their Society. It would not add much to the duties of the collector of a Friendly Society, who, in order to collect the weekly payments to cover against sickness, &c., has to go his round from house to house, if, for a trifling commission (not for 25 per cent. as hitherto), he were to collect weekly the premiums of those who, through the agency of the Friendly Society, assure with the Government Office. There would be no chance of the Society spending the funds so collected, as the premiums would have to be regularly paid, say every month, by the Society to the Government Office, which might then issue, as is even now the case with the Post-Office Banks, an official receipt for the premium direct to the assured. I believe a similar course is already being pursued in the case of the deferred annuities granted by the National Debt Office; the Friendly Society or the Savings Bank negotiating, on behalf of their customers, with the National Debt Office, for the purchase of an immediate or deferred annuity. But even if this arrangement be not adopted, the establishment of a Government Assurance Office will doubtless cause the habit of assurance to become much more general, not only amongst the operatives and others of small means, but also amongst the middle and higher classes, so that neither the Friendly Societies nor Insurance Companies will, after a few years, have more cause to complain of Government competition, than, as we have shown, the Banking Companies have on account of the issue of Post-Office Orders, or Savings Banks on account of the Post-Office Banks. Besides, Government does not propose to withdraw from the numerous Friendly Societies the high rate it allows on their

investments,* a rate much higher than the State itself will, generally speaking, be able to realise on its investments. These Friendly Societies, if only properly managed, may successfully compete with Government.

Having thus referred to the case of Friendly Societies, and shown that they will not be injured, but rather benefited by the Government measure, I will but glance at one or two other objections which have been raised.

It is said that the careful selection of lives is likely to be carried out much better by directors of Companies and private establishments, who are personally interested in the matter, than by Government officers who are not. In reply, it must be remembered, that most of the business of life assurance is transacted by agents, some of whom do not much consider the eligibility of the life for assurance, but, apart even from considerations of commission, are desirous that their friends should be accepted. The directors have only in town cases, and then not always, the opportunity of seeing the life; in all other cases they are solely guided by the opinion of the agent, the report of the medical examiner, and a letter from a friend of the assured, who not rarely writes what the agent or the life proposed dictates to him. It appears, then, that the steps at present taken by Companies, to form an opinion as to the eligibility of a life are not always satisfactory. On the other hand, according to the Government plan, neither the Post-Office employees nor the other officials would be anxious to pass proposals merely for the sake of getting new business; and there is no reason in the world, why they should not be as conscientious and careful as those holding other appointments. In a large number of cases, postmasters are even at present very efficient agents to respectable Assurance Companies, and they find sufficient time to transact the business in connection with their agency.

Again, the effects of selection of lives have been very much exaggerated. The result of an investigation on the subject by Mr. Farren is, that the rates of mortality of persons insured would not particularly differ from those prevailing among the male population at large, taken indiscriminately without regard to health. Again, Mr. Samuel Brown says, "The general tendency of selection

* From a recent Parliamentary Return it appears that there are 99 old Societies, with a capital of £593,523, enjoying £4. 11s. 3d. per cent. per annum interest; and 352 Societies, with a capital of £1,256,308, receiving £3. 16s. 0½d. per cent. per annum interest. Only 219 Societies, with a capital of but £190,893, receive £3. 0s. 10d. per cent. per annum interest.

cannot be mistaken, and it is universally found, that if the mortality in the first few years be less, it increases very rapidly after a short period." The experience of Mr. W. Morgan, Dr. Farr, Mr. Higham, and other eminent actuaries, tends to the same result. Mr. Scratchley goes even so far as to urge that the field of assurance should no longer be limited; that attempts should be made for the general assurance of lives, however apparently they may have departed from the assumed standard of average good health, a suggestion which several Offices are acting upon. Though the effects of selection have thus been exaggerated, it does not follow that applicants should be indiscriminately admitted to the benefits of life assurance. I do not even consider it sufficient for the Office to satisfy itself on the three points mentioned by the Chancellor of the Exchequer, viz., the age, the employment, and habits of the life proposed for assurance. Government would soon find such a course absolutely ruinous, for all those afflicted with serious maladies, and those who feel death impending, would crowd to the Government Office and assure their lives without delay. I therefore think that applicants should not be admitted to life assurance without due care being exercised, and that a preliminary medical examination should be a *sine qua non*.

Having answered as many of the objections raised against the Bill as I have heard advanced, let me now show some of the positive advantages that the measure holds out. The administration of the Government Assurance Office will, no doubt, be as perfect as the united endeavours and abilities of those we consider the most competent in the country for that purpose—those, in fact, to whom we entrust the management of our finances—are able to render it. No private Company possesses this advantage.

The greatness of the number of the assurances that will be granted will prevent an undue departure from the average.

The aggregate expense of management will be much less than if such assurances were granted by a large number of small Companies, all competing with each other to obtain business.

In the event of an assured changing his place of abode, he would not risk forfeiting his assurance, as those who belong to Friendly Societies are liable to, but the assurance would merely have to be transferred from one postmaster to another. The value of this privilege will be at once perceived, if we remember that many of the depositors with the Post-Office Savings Banks have availed themselves thereof.

We now come to the question, as to what table of mortality

should be adopted by the Government Assurance Office. It becomes necessary to consider what class of society is most likely to assure with the Government. I think it will be found, that the real working men of our country do not care to provide their families with any considerable sum to be received after death; the utmost they aspire to, is to provide for a decent burial and a small sum of money, which is sure "to come in handy" on those occasions. Besides, the Chancellor of the Exchequer proposes not to receive any sum in respect of instalments or premiums of a less amount than 2s. The ordinary operative will hardly be able to spare this amount from his wages at any one time; he will therefore continue to assure with the Friendly Societies, till Government offers proper facilities. But a superior class of the population will, I think, readily avail itself of the benefits the Government holds out—tradesmen, artisans, clerks and servants.

Now, the tables of mortality deduced from the returns of Friendly Societies, and framed by Mr. A. G. Finlaison, will not altogether apply. Though these useful tables are quite correct, and are borne out by Mr. Ratcliffe's and Mr. Neison's observations of the same class of Society, they would give far too favourable a view of the mortality likely to be experienced by those who will avail themselves of the Government terms.*

The Northampton table, with its acknowledged shortcomings, as well as the Carlisle table, with its imperfect graduation, the limited extent of the observations on which it is based, and its giving only the mortality of one single town, can at once be dismissed as undesirable to adopt.

The tables of mortality deduced from the experience of the Equitable, or from that of the seventeen Offices, ought not to be used, because they give the mortality of the middle and higher classes only.

The Government tables constructed by Mr. John Finlaison are based upon the recorded ages and deaths of 22,000 Government annuitants and tontine nominees in England and Ireland. These tables, it must be admitted, representing as they do the mortality of

* *Vide* Report and Tables by the Actuary of the National Debt Office, on the subject of sickness and mortality among members of Friendly Societies, presented to Parliament 12th August, 1853; and "Observations upon the sickness and mortality experienced in Friendly Societies, by Henry Tompkins" (*Assurance Magazine*, vol. v., p. 13). *Primâ facie* it would appear, that the circumstances in which the working population of this country is placed are decidedly opposed to a prolonged duration of life, but observations upon Friendly Societies leave no doubt as to the fact, that the value of life of the labouring classes is much superior to that of the general community.

the richer classes—of those who do not know what manual labour is, and more especially of annuitants who apply only for an annuity if they know by themselves that they will long enjoy it—and after all they are the best judges—these tables, I think, will not be a criterion of the mortality of those about to patronize the Government Assurance Office.

I imagine, then, that the English Life Tables, more especially No. 2, which are based upon the recorded ages of above 15 millions living persons and nearly $2\frac{1}{2}$ million deaths, and in connection with which every possible circumstance seems to have been taken into consideration, will be the table that ought to guide the Government Assurance Office in its calculations. I think we may soon look forward to the publication of a third English Life Table, which will, no doubt, possess advantages superior even to those presented by the two former, and to which of course the preference would have to be given.

In the English Life Tables, there are separate tables of mortality for males and females. The distinction of male and female life is of importance in the granting of annuities, because a large number of annuitants are of the female sex, who, it is a well-established fact, live longer than the male sex. But with regard to life assurance, it would be keeping on the safe side to grant assurances on the lives of females on the same terms as to males.

With respect to the rate of interest at which the tables ought to be calculated, it must be remembered that the funds will all have to be invested in the Government Securities, such as Consols. Now, it is an undoubted fact, that the rate of interest has been slowly falling for centuries, and that, as was the case in Holland last century, the rate may descend so low, that Government can borrow at 2 per cent., and others at 3 per cent.; yet if we look at the price of securities for the last 30 years, the average price of Consols will be found to be about 92, and the corresponding rate of interest above $3\frac{1}{4}$ per cent.; and to judge from the state of the money market at the present time, and the causes that have brought the present dearness of money about, it is not unlikely that for the future the average rate may be still higher. Under these circumstances, provided a sufficient loading be placed upon the premiums, they can safely be calculated at 3 per cent. If Government should, at some future time, reduce the interest, and their assurance establishment suffer thereby, the latter might justly

claim indemnification ; the more so, if part of the profits are to be paid into the public exchequer.

As to the question, what loading should be put upon the net premiums, we must remember that, even where there is no necessity to lay the foundation for a bonus fund, yet provision must be made (1) for the cost of management, (2) to form a contingent fund to meet excess of mortality or loss through investments and reduction of the interest. We have already shown that the guarantee fund need not be large. Respecting the probable expenses of management, it is difficult to form any correct idea. The expenses of the Post Office Savings Banks for the year ending 31st Dec., 1863, were £25,400. 18s. 6d., exclusive of the allowances to postmasters, letter receivers, &c., on nearly three million and a half sterling deposits ; but this will hardly be a criterion as to the probable expenses of the Government Assurance Office. We have heard of Societies whose expenditure amounted to 295 per cent. on the premiums ; and, on the other hand, there are offices whose expenses are but 4 per cent. of their receipts. It is Professor De Morgan's opinion* that the expenses of carrying on an Insurance Office, though they vary somewhat with the amount of business, yet do not by any means increase as fast. In the first year of its existence it would not be surprising if all the premiums paid were swallowed up by house-rent, salaries, &c. ; while, in process of time, increase of business might reduce such expenditure to 2 per cent. upon the yearly premiums. True, according to the plan before us, there would be a great saving effected in the item of commission for procuring assurances, which, of course, the Government would not have to pay ; yet they will have to make some remuneration to the Post-Office employées, as well as to the medical officers, proportional to the business that passes through their hands, which remuneration, however, will be but trifling compared with the high commission allowed to the agents of Industrial and Friendly Societies. The late Mr. Whitbread, in his Bill of 1807, proposed that each postmaster should receive one penny in the pound of the money passing through his hands. If great facilities were to be offered to the working classes, in collecting the premiums at their homes, monthly or weekly, the remuneration would, of course, have to be more liberal.

I subjoin a specimen Table of Rates, both net and with a

* *Essay on Probabilities*, p. 263.

loading of 20 per cent., according to the Male English Life Table, No. 2, and at 3 per cent. interest.*

Age.	Net Annual Premium.			Annual Premium with Loading of 20 per Cent.			HALF-YEARLY PREMIUM.			QUARTERLY PREMIUM.			MONTHLY PREMIUM.		
							Net.	With Charge of 20 per Cent.		Net.	With Charge of 20 per Cent.		Net.	With Charge of 20 per Cent.	
16	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.	£	s.	d.
20	1	8	8	1	14	5	0	14	6	0	17	5	0	7	4
25	1	11	8	1	18	0	0	16	0	0	19	3	0	8	1
30	1	15	9	2	2	11	0	18	1	1	1	9	0	9	1
35	2	0	9	2	8	11	1	0	8	1	4	9	0	10	5
40	2	7	0	2	16	5	1	3	10	1	8	7	0	12	0
45	2	14	11	3	5	11	1	7	11	1	13	6	0	14	0
50	3	5	1	3	18	1	1	13	1	1	19	8	0	16	8
55	3	18	6	4	14	2	1	19	11	2	7	11	1	0	2
60	4	16	11	5	16	4	2	9	5	2	19	4	1	4	11
65	6	2	7	7	7	1	3	2	9	3	15	3	1	11	9

The net rates, with a 20 per cent. loading, will be found to exceed the non-participating rates of nearly all the Insurance Offices. But if this loading be considered inadequate, it might be raised to 30 or even 40 per cent. on the pure premium; and even then, notwithstanding what has been asserted to the contrary in many quarters, the Government rates will be lower than those of most Friendly Societies or Industrial Assurance Offices, some of which load their premiums from 50 to 70 per cent. Government will, then, not only offer superior security, but even cheaper terms than the Friendly Societies. This cannot be called a public grievance, but rather a public benefit; whilst for the reasons already pointed out, Friendly Societies will by no means cease to exist, much less be ruined.

* The rates of premiums payable more than once a year were calculated from the annual premiums by the formula

$$\frac{2\pi_x}{2m - (m-1)(\pi_x + d)},$$

where π_x is the annual premium at age x , d the discount for 1 year of £1, m the number of times a year the premium is payable.

It is obtained in the following manner:—The formula for the premium for the m th portion of a year is

$$\begin{aligned} \frac{\pi_x}{m} \left\{ 1 + \frac{\frac{m-1}{2m}}{\frac{m+1}{2m} + a_x} \right\} &= \frac{\pi_x}{m} \left\{ 1 + \frac{\frac{m-1}{2m}}{1 + a_x - \frac{m-1}{2m}} \right\} = \frac{\pi_x}{m} \left\{ 1 + \frac{\frac{m-1}{2m}}{\frac{1}{\pi_x + d} - \frac{m-1}{2m}} \right\}, \\ &= \frac{\pi_x}{m} \left\{ \frac{1}{\frac{1}{\pi_x + d} - \frac{m-1}{2m}} \right\} = \frac{2\pi_x}{2m - (m-1)(\pi_x + d)}. \end{aligned}$$

The manner in which tables of rates could be most advantageously placed before the public is, to charge uniform rates of premiums, say of 2s. a month or 6d. a week, or multiples of these rates, to cover different amounts assured at the different ages. If placed before him in this shape, the working man would more clearly see the advantages to be secured by life assurance.

The following table shows the

Amount that can be Assured by the Payment of a uniform Premium of 2s. a Month or 6d. a Week for the whole Term of Life, according to the English Male Life Table, No. 2, at 3 per Cent., with 20 per Cent. Loading.

Age	16.	20.	25.	30.	35.	40.	45.	50.	55.	60.
Amount Assured {	£ s. d. 66 13 4	£ s. d. 61 10 9	£ s. d. 54 12 0	£ s. d. 47 1 2	£ s. d. 41 7 6	£ s. d. 35 6 0	£ s. d. 29 12 6	£ s. d. 24 9 10	£ s. d. 19 6 8	£ s. d. 15 11 8

It would be desirable also not only to have a table of rates payable during the whole of life, but also tables of rates payable only to the age 60 or 65, which is about the age when the majority of the industrial classes cease to work, and consequently no longer receive wages. Provident men would then commence to enjoy their deferred annuity; but even if no provision has been made for such annuity, it would not be desirable that working men should be troubled and weighed down at that stage of their existence with making payments they can ill afford, to secure a certain sum after death to their families.

The following table shows the

Net Annual and Monthly Premium, to cease on the Life Assured attaining Age 60, for assuring the Sum of £100 at Death; it is also computed at 3 per Cent., and according to the English Male Life Table, No. 2.

Age.	Annual Premium.	Monthly Premium.
	£ s. d.	£ s. d.
16	1 10 11	0 2 9
20	1 14 8	0 3 1
25	2 0 2	0 3 6
30	2 7 4	0 4 2
35	2 17 4	0 5 0
40	3 12 1	0 6 4
45	4 15 11	0 8 5
50	7 2 2	0 12 5
55	13 17 2	1 4 7

Endowment assurances, according to which the amount assured becomes payable on the life attaining a certain age, say 60, or at death, should that happen previously, I do not think would suit the working or industrial classes.

The grant of endowments or provisions payable at the end of a certain number of years might, I think, well be embraced in the sphere of operations of a Government Assurance Office. By means thereof, the provident man might secure a provision for his daughter, at birth or at a later period, payable on her attaining a certain age, with a view to a marriage portion; or in favour of his son, to provide for his education, apprenticeship, or for otherwise starting him in life. The loading, in these cases, need not be so high as that for assurance premiums, and the premium should be so calculated that, in the event of the death of the nominee, or the inability of the purchaser to keep up the payments, the premiums paid could be returned.

The proposition of the Chancellor of the Exchequer for dealing with assurances in the event of their lapsing through non-payment of the premium, or if it should be desired to surrender them, has now to be considered. Mr. Gladstone is about to propose the following in Committee, "that, in case any person who has purchased or shall purchase a deferred annuity, under the provisions of the Act of the 10th year of George IV., c. 24, s. 36, or under the provisions of the Act of 16 & 17 Vict., c. 45, s. 5, or a payment to be made at death under this Act, after having paid the several instalments or premiums for a period of not less than five years, shall make default in the payments stipulated to be made according to the contract for the purchase of such deferred life annuity or payment on death, the Commissioners for the Reduction of the National Debt, at the option of the party beneficially interested in the contract, shall grant to such party a life annuity immediate or deferred, equivalent according to the tables then in force, under the said Act, to the amount of the several payments which shall have been actually made by such person, or shall contract to pay on the death of such person such a sum of money as would be assured by the sum already paid in premiums, or shall make immediate payment to such person of such sum of money as shall be fixed by the regulations authorised to be framed under the provisions of this Act, not being less than one-half of the payments actually made by such person."

I think it will easily be seen, that if these provisions should

pass into law the Government Assurance Office would not find this a self-supporting system, under the ordinary system of assurance. But the whole of this motion appears to be full of anomalies. In the first place, when speaking of deferred annuities, it is to be presumed that the Chancellor only refers to those taken out on the returnable or non-returnable scale. In the former case the money is returnable at any time: Why, then, propose to give only half the premiums back? If the non-returnable scale be referred to, such annuities would very nearly possess all the advantages of those on the returnable scale; and that man would indeed be foolish, who cares to purchase an annuity which he might, under another name, buy from 30 to 50 per cent. cheaper.

Again, if a man, after having been assured for five years, can, for the premiums he has paid, receive an equivalent annuity, this annuity will not only suffice to cover the additional premium he will have to pay to secure an assurance at his advanced age, but he can besides enjoy an annuity throughout life. After the lapse of every five years there is no reason why he should not repeat this process, and thus he will, in the course of time, have a very handsome annual allowance besides his assurance, thanks to Mr. Gladstone's liberality.

Let us take one numerical example:—The net premium at age 20, to assure the sum of £100, is £1. 11s. 8d. according to the English Life Table. At the end of five years he has paid £7. 18s. 4d. If he now likes to make default, he can buy an annuity for life of 7s. 6d. a year nearly. Now the premium for an assurance of £100 at age 25 is £1. 15s. 9d.; so that after assigning 4s. 1d. a year for the enhanced premium, he is still the gainer by an annuity of 3s. 5d. This process he can repeat every five years; and as similar absurdities could be shown in other cases, it becomes evident that it would not be prudent for the Government Office to follow a practice, which, I may add, no Insurance Office in England has been venturesome enough to embrace.

I think it will also at once be seen, that, if undue facilities are offered for surrendering a policy, people are apt to withdraw the premiums paid when money is dear, and the price of securities low; a step which would necessitate the Government Assurance Office to sell out stock at a low price, and at an eventual loss. No doubt it will be recollected what cost this entails upon the nation in the case of the Savings Banks.*

* From a return dated 31st March, 1864, it appears that the amount of money, principal and interest, due to the Trustees of Savings Banks by the Commissioners of the National Debt, on the 20th November, 1863, was £41,237,932; the value of the securities held by the Commissioners to provide this amount was £38,554,846. 6s. 4d., leaving a deficiency of £2,683,085. 13s. 8d.

Besides, it would not be judicious to offer too great facilities for withdrawing the premiums paid in respect of assurances. The payments made should be looked upon as investments for the future benefit of the family, and not as a deposit "at call," to serve merely temporary advantages.

Out of doors, there is no part of life insurance which is so generally misunderstood as that of the surrender values and the lapsing of policies. In the words of Professor De Morgan :—

"Persons having insured for their whole lives, and being afterwards desirous to discontinue, are surprised to find that they cannot get for their policies even as much as the amount of their premiums, to say nothing of interest. Each of them reasons thus:—'Since I did not die, the Office lost nothing by me, and, as it has turned out, ran no risk: why, then, should they not restore me the premiums which I have paid?' To which it should be answered:—'Because the risk, which turned out favourably in your case, did not produce the same result in another case; and it is the very essence of an Insurance Office, that those who live pay for those who die. If you can induce the executors of those who have died during your tenure of your policy to refund what they have received from the Office, with compound interest, then the Office will repay your premiums, also with compound interest.'"

Similarly, when a policy is allowed to lapse, it is imagined by the public that the whole of the premiums paid becomes profit to the Office. But it is not so; only that portion becomes profit, by which the premium for the whole life exceeds the premium for the temporary insurance. Again let us hear what the learned Professor says :—

"Every premium which is paid by an insurer contains the consideration given for the chance of his dying in each and every subsequent year. If, then, he remain a member of the Office, and stand the risk of death during a certain number of years, all such part of his premiums as was consideration for the risks of those years became due to the Office, and was taken by the Office as compensation for those risks, and cannot, therefore, be said to fall to them as profit upon the lapse of the policy. Two individuals, A and B, go to the Office on the same day, and insure their lives for the same sum, A upon his whole life, and B for seven years; A pays say £10 of premium and B £7. At the end of seven years A allows his policy to lapse, just at the time when B's policy expires by its own construction. What does the Office gain by the lapse? Evidently the temporary annuity of £3, by which the two premiums differ. The £7 paid by A out of £10 is not more than sufficient to pay his share of the claims which arose during the years which he continued in the Office; the remaining £3 was a reserve for future years, which becomes profit to the Office on his declining to stand the risks of those years."

It does, no doubt, appear a hardship, that a man who, through illness or misfortune, is prevented from continuing his policy,

should, after years of saving, not only find that his family is after all left unprovided for, but that only a portion of the monies he has paid are returned to him. But is his case worse than that of a man who pays a watchman to guard his property? If, after a time, he finds it too expensive to keep this watchman, would he, on discharging him, claim a return of all the wages paid, because the property was not attacked by thieves and no actual risk arose? The wages of each week covered the expense of protecting the property during that week; and similarly, the greater portion of the premium paid goes to cover the assurance against the risk of death during the period for which it is paid.

Under the prevailing system of assurance, then, I do not see how any other course can be adopted, than that of allowing, in the case of the discontinuance of a policy, merely its surrender value, that is, the present value of the reversion, diminished by the value of an annuity of the premiums. Yet the utmost leniency and forbearance should be exercised by the Government Office, with a view to obviate the necessity of the working man abandoning his life policy, should he be in temporary embarrassment or suffer from illness. It would be well to imitate the example of the class Offices, who allow policies to be reinstated within a year after they have lapsed, rather than that of some Friendly and Industrial Societies, who, on the slightest irregularity in paying the premiums, at once cause the policies to become void.

Dr. Farr has propounded a plan similar to that, which we referred to when considering the subject of life annuities, namely, the establishment of a "Savings Insurance Bank." He says,*—"Young working men or servants can, as a general rule, only save a small sum out of their yearly earnings in the early part of life, and cannot therefore pay the single premium; much less can they engage to pay an annual premium for the whole period of life, part of which will probably be passed in sickness, infirmity, or straitened circumstances. To grant insurances on the plan of an annual premium, is also to incur much risk, as, if bad lives should happen to be admitted in undue proportion, with some such sum as £2. 3s. 7d. in hand on each life, the fund might have to pay, in the first year or two, several sums of £100."

The plan by which he proposes to meet the case, and to place assurance within the reach of those, who resort to Savings Banks, is:—

A single premium of £1, at age 20, insures		£2. 16s. 9d. at death;
"	"	21, " £2. 15s. 11d. "
"	"	22, " £2. 15s. 1d. " &c.;

* Appendix to 12th Registrar-General's Report, p. xlv.

So that for the payment of £1 a year during 3 years, a man would stand insured for £8. 7s. 9d.; after 10 years, for £26. 10s. 1d.; and after 30 years, for £68. 4s. 5d., having deposited £30 in premiums. This £1 a year might have been paid in monthly, or even smaller, instalments; and if in any year the assured should be unable to pay the premium, or wishes to discontinue paying altogether, the policy remains as before; only no additions continue to be made to the amount assured. According to this plan, so long as the premium in any year is not increased beyond the original amount, one investigation into the state of health of the depositor suffices.

Dr. Farr goes further, and contends that, under this plan, the premiums paid may be withdrawn in full by the depositors at any time, and thus Mr. Gladstone's desire of giving a liberal return to persons allowing their policies to lapse would be met.

This scheme is, no doubt, very ingenious, but I apprehend if, as Dr. Farr himself suggests, some addition is to be made to the tabular premiums for expenses of management and to cover fluctuations in interest, &c., a *full* return of the premiums paid cannot fairly be made to the assured in all cases. For instance, if, according to his plan, the premiums are loaded 20 per cent., then, for an annual payment of £1. 4s., he stands assured, after 10 years time, for £26. 10s. The present value of this sum, for a life aged 30, is £10. 14s. 10d., which is all that can be returned to the assured, whereas he has really paid the sum of £14. It is true, that the longer the assurance exists, the less the difference between the surrender value and the premiums paid will become. Yet I think this is rather an objection to a plan, which otherwise would have been particularly suited for a Government Assurance Office, occupying as it does an intermediate place between ordinary life assurance and the ordinary Savings Bank system.

I humbly beg to suggest a plan, which might meet the point upon which the Chancellor of the Exchequer lays so much stress, viz., to provide liberal terms to those who drop their policies at any time. The premiums for an assurance might, I think, be calculated to provide for a return of all premiums paid on the policy in the event of death. The formula for the annual premium is $\frac{M_x}{N_x - R_x}$, and the following is a table of the net annual and monthly rates for several ages, at 3 per cent. and according to the English Male Life Table, No. 2:—

Age.	Annual Premium.	Monthly Premium.
	£ s. d.	£ s. d.
16	2 12 5	0 4 7
20	3 0 4	0 5 3
25	3 12 2	0 6 4
30	4 7 10	0 7 8
35	5 9 1	0 9 6
40	6 18 5	0 12 1
45	9 0 3	0 15 9
50	12 2 1	1 1 2
55	16 18 0	1 9 7
60	24 10 6	2 2 11

It will, I believe, be found that, according to this scheme, for the more advanced ages, or where an assurance has been many years in force, the *total* amount of the premiums paid can be returned at any time to the assured—the usufruct of the interest realised upon the premiums paid, having been sufficient to cover the risk—and even in the most disadvantageous case, a large portion of the premium can with safety be returned.

It is true that the premiums, according to this method, will be found excessively high; but we must remember that, besides the advantages pointed out, not only will the amount assured be paid on the claim arising, but, according to the number of premiums paid, often three or four times the amount assured. Besides, Mr. Gladstone wishes us distinctly to understand, that if terms of particular liberality are to be offered to those who drop their policies, the premiums have to be adequately raised. I have calculated the above annual and monthly rates for several ages, according to this view.

If we give this interpretation to Mr. Gladstone's proposition respecting the lapsing of policies, no such absurdity as would appear *primâ facie* will be found to exist. It would not, however, be fair to allow Government, according to the scheme I propose, to grant policies for amounts at all near to £100, as, through the fact of the premiums being returnable, together with the amount assured at death, a much larger sum than the net amount contracted for is actually assured; to issue policies for such large amounts would be invading the province of the private Insurance Offices. Fifty pounds, I think, should be the maximum for this class of assurance.

I think that even, if the idea of making periodical returns of profits to the assured be not entertained, it would be desirable that

periodical valuations of the assurances granted by the Government be made. It may be, that such a valuation would show unexpected results, and it would, at all events, be the most trustworthy guide to satisfy the country, that the right path is being followed.

In the event of its being discovered that considerable profits are being realised, a reserve fund should be established, to serve as a guarantee for the nation that it will not be called upon at any future time—and only after this has accumulated for years, and the system is found to be working satisfactorily, should a division of profits be recommended.

I have before mentioned that, since the State guarantees the amounts assured, it acts the part of shareholders subscribing to a capital, who are indemnified for the guarantee they render by a portion of the profits being allotted to them. In the same way the State should receive a portion of the profits. Some proportion of the profits might, however, be returned to the assured, in the usual modes of increase to the sum assured, reduction of the premium, &c.

I may here mention, that the nation must be quite prepared to be called upon to subsidize the Assurance Office in the first few years of its existence, as the aggregate of the claims may exceed the total of the funds in hand. But this deficiency could easily be made up again in a succeeding year. This would happen, not through any extraordinary ill-fortune, but in the ordinary nature of assurance business.

I will not long detain you by dwelling upon the practical details of the scheme.

The management of the Government Assurance Office should, I think, be entrusted to a Board of Control, similar to that conducting the administration of the National Debt. It would, of course, be desirable to keep the accounts in every way perfectly distinct from those of the other Government departments.

The Head Office, whence all the instructions to the different branches would have to be issued, should be located in London.

By making use of the same machinery as that employed for the Post Office Savings Banks, between two and three thousand agencies, distributed equally throughout the country, would be at once created. It may be a question, whether the benefits of assurance should be equally extended to Scotland and Ireland as to England and Wales. I think, if proper care be exercised, there can be no objection thereto. Although the life table which I have suggested should be adopted, is based only on the mortality experienced in England, it will, for all purposes, apply to the whole of Great Britain and Ireland.

The medical examination should, as mentioned before, be entrusted to the Poor-Law medical officers, of whom there are nearly 4,000 distributed over the United Kingdom. It would also be desirable, that some medical authority of eminence should be located at the Head Office, whose duty it would be to examine the reports of the local medical examiners, and to exercise in other respects supervision over the medical department of the Government Life Assurance Office.

In the case of operatives, the employer or his foreman are the fittest persons to refer to respecting the health and habits of the life proposed. The latter, especially, is well able to testify to the eligibility for assurance of those employed under him.

The Chancellor of the Exchequer proposes not to receive instalments for smaller amounts than 2s. This, as I mentioned before, will hardly suit the working classes; but the difficulty might be met, if that large staff attached to the Post-Offices, namely the letter-carriers, were to collect the premiums weekly. The postmaster would only have to account once a month to the Head Office for the premiums received, and no complication would arise on that score.

In the larger towns it will, I think, be necessary to have an official whose sole duty it will be to look after the insurance business; and it will also be desirable that inspectors should occasionally be sent out from the Head Office to supervise the postmasters and medical officers.

In the event of a claim arising, it will be necessary that it should be paid as soon as possible after the decease of the life assured. The practice of Offices in delaying one or three months in paying claims under their policies is a source of but a very trifling profit indeed.

I think that, looking at the case of Savings Banks, where I believe there has not been a single case of fraud, there need be little fear of personation. The clergyman, the magistrate, the Poor-Law guardian, the tax-gatherer and registrar, would all aid the Government; and, most of all, the employer of labour could, by testifying to the identity of the claimant and the deceased, prevent any attempt at fraud being made. Where an assured has changed his place of abode, the measures to insure his identity should be even more stringent.

I have, in conclusion, to mention one more point.

The Chancellor of the Exchequer proposes, that no person entering into a contract for a payment on death, or any person

becoming beneficially interested therein, shall be exempted from probate or any stamp duty payable by law.

I have no doubt this is proposed with a view that the Government Assurance Office may not be more favoured than the other Assurance Companies. It has, however, been found, that for persons in humble circumstances the necessity of taking out probate or letters of administration is often attended with hardships and inconvenience. It would be giving a wholesome impetus to life assurance if, for policies under £100, this requirement were not to be insisted upon, the amount assured being paid to the next of kin, or the person that was nominated by the assured.

The rule on this subject adopted by the County of Kent Friendly Society—one of the best-conducted Friendly Societies in the kingdom, established so far back as 1828—is so to the point that I will quote it :—

“Burial money, upon the occasion of the death of the assured, shall, upon satisfactory proof of his or her death, be paid to his or her widow or husband; and if there be no widow or husband surviving, to his or her surviving child, if only one; or if children, to such children in equal parts; and if there be no child surviving, then to his or her father; and if there be no father surviving, then to his or her mother; and if there be no mother surviving, then to his or her surviving brother and sister, or brothers and sisters if more than one, in equal shares; and if only one, the whole to such one; and if there be no brother and sister, then to the person or persons who shall appear to the trustees to be entitled under the Statute of Distributions to receive the same.

“But burial money when due under provisions as above, shall, in whole or in parts as the case may be, be paid to any one or more of the persons specified as above, in preference to any other or others of such persons, provided that any such person or persons so preferred shall have been nominated by the assured to receive the same in a writing deposited by him or her with the Secretary of the Society previous to and remaining unrevoked at the time of his or her death. And every such nomination, to be valid and effective, shall be signed by the member making it; and his signature shall be attested by at least one witness, whose residence and calling shall be fully described. Any nomination as above may be at any time revoked; and upon every occasion of a nomination being revoked, the revocation to be effected shall be in writing, and signed and witnessed as in the case of a nomination being made, and shall be deposited with the Secretary previous to the death of the member. And in every case of a nomination being revoked, as well as in every case of the death of a nominee in the lifetime of the assurer, it shall be lawful to make a new nomination as before upon the payment of a fee for the same not exceeding 2s. 6d.”

Mr. Whitbread, in his Bill for a Poor's Insurance Fund, thought a like course desirable. In fairness a similar privilege would have to

be conceded to those assuring for amounts under £100 both in the Class and Industrial Assurance Offices.

I have now fully entered into the details of the Government Bill, and answered, I trust satisfactorily, the objections that have been raised against it. I fear that much that I have said may be considered trite; but though I was well aware that many of my remarks might not be new to actuaries, yet, thinking that this paper might come into the hands of those, who are less informed upon the subject, I thought it desirable not to omit what might contribute to the proper understanding of life assurance as proposed to be undertaken by Government. Some of the particulars of the scheme may be open to improvement and revision; but in its general features I believe, if adopted, it will be productive of considerable benefit to the large mass of the working population.

A Budget of Paradoxes. By PROFESSOR DE MORGAN.

(Continued from page 284, vol. xi.)

An essay to ascertain the value of leases and annuities for years and lives. By W[eyman] L[ee]. London, 1737, 8vo.

A valuation of Annuities and Leases certain, for a single life. By Weyman Lee, Esq., of the Inner Temple. London, 1751, 8vo.. Third edition, 1773.

Every branch of exact science has its paradoxer. The world at large cannot tell with certainty who is right in such questions as squaring the circle, &c. Mr. Weyman Lee was the assailant of what all who had studied called demonstration in the question of annuities; and he can be exposed to the world: for his error arose out of his not being able to see that the whole is the sum of all its parts.

By an annuity, say of £100, now bought, is meant that the buyer is to have for his money £100 in a year if he be then alive; £100 at the end of two years, if then alive; and so on. It is clear that he would buy a life annuity if he should buy the first £100 in one Office, the second in another; and so on. All the difference between buying the whole from one Office, and buying all the separate contingent payments at different Offices, is immaterial to calculation. Mr. Lee would have agreed with the rest of the world about the payments to be made to the several different Offices, in consideration of their several contracts: but he differed from every one else about the sum to be paid to *one* Office. He contended that the way to value an annuity is to find out the term